

#3
Priority
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11/13/00

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re Application of:

Bruce Henry Garvie

Group Art Unit:

Serial No. : 09/584,375

Examiner:

Filed : 05/31/00

Title : CLEAT FOR FOOTWEAR



TRANSMITTAL OF PRIORITY DOCUMENT

Commissioner of Patents
and Trademarks
BOX PCT
Washington, D.C. 20231

Sir:

Applicant hereby submits a certified copy of South African Provisional Patent Application 99/3671 for use as a priority document in the above-referenced patent application.

Respectfully submitted,

A handwritten signature in black ink, appearing to read "John L. Welsh".

John L. Welsh
Registration No. 33,621

AQUILINO, WELSH & FLAXMAN, P.C.
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Docket No. GAR-001

Sertifikaat



REPUBLIEK VAN SUID-AFRIKA



REPUBLIC OF SOUTH AFRICA

Certificate

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This is to certify that

THE ATTACHED DOCUMENTS ARE TRUE COPIES

OF THE SPECIFICATION OF PROVISIONAL PATENT NO. 99/3671

AS FILED IN THE SOUTH AFRICAN PATENT OFFICE ON 31 .05.1999

PROPRIETOR: GARVIE : BRUCE HENRY

ENTITLED : SPORTS EQUIPMENT.

Geteken te
Signed at

PRETORIA

in die Republiek van Suid-Afrika, hierdie
in the Republic of South Africa, this

9th

dag van
day of

June . 2000

S. Schönba
Registrateur van Patente
Registrar of Patents

REPUBLIC OF SOUTH AFRICA
PATENTS ACT, 1978
APPLICATION FOR A PATENT AND
ACKNOWLEDGEMENT OF RECEIPT
(Section 30(1) Regulation 22)

REPUBLIC OF SOUTH AFRICA
FORM P.1 REVENUE
(to be lodged in duplicate)

31.5.99

R 060.00

THE GRANT OF A PATENT IS HEREBY REQUESTED BY THE UNDERMENTIONED APPLICANT
ON THE BASIS OF THE PRESENT APPLICATION FILED IN DUPLICATE

21 01 PATENT APPLICATION NO 993671 A&A-REF-145-V13423 IN/vd

71 FULL NAME(S) OF APPLICANT(S)

GARVIE, Bruce Henry

ADDRESS(ES) OF APPLICANT(S)

303 Jubilee Drive, Northcliff,
Gauteng, Republic of South Africa

54 TITLE OF INVENTION

" SPORTS EQUIPMENT "

Only the items marked with an "X" in the blocks below are applicable.

THE APPLICANT CLAIMS PRIORITY AS SET OUT ON THE ACCOMPANYING FORM A&A-REF-145-V13423 IN/vd
Country: No:

THE APPLICATION IS FOR A PATENT OF ADDITION TO PATENT APPLICATION NO 21 01

THIS APPLICATION IS A FRESH APPLICATION IN TERMS OF SECTION 37 AND BASED ON
APPLICATION NO 21 01

THIS APPLICATION IS ACCOMPANIED BY:

- ☒ A single copy of a provisional specification of 8 pages
- ☒ Drawings of 3 sheets
- ☐ Publication particulars and abstract (Form P.8 in duplicate) (for complete only)
- ☐ A copy of Figure of the drawings (if any) for the abstract (for complete only)
- ☐ An assignment of invention
- ☐ Certified priority document(s). (State quantity)
- ☐ Translation of the priority document(s)
- ☐ An assignment of priority rights
- ☐ A copy of Form P.2 and the specification of RSA Patent Application No 21 01
- ☒ Form P.2 in duplicate
- ☒ A declaration and power of attorney on Form P.3
- ☐ Request for ante-dating on Form P.4
- ☐ Request for classification on Form P.9
- ☐ Request for delay of acceptance on Form P.4
- ☐ Extra copy of informal drawings (for complete only)

74 ADDRESS FOR SERVICE: Adams & Adams, Pretoria

Dated this 31st day of May 1999

ILZE NACHENIUS
ADAMS & ADAMS
APPLICANTS PATENT ATTORNEYS

The duplicate will be returned to the applicant's address for service as
proof of lodging but is not valid unless endorsed with official stamp

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PATENT APPLICATION NO		
21	01	993671

A&A Ref: V13423 IN

LODGING DATE	
22	31 May 1999

FULL NAME(S) OF APPLICANT(S)

71	GARVIE, Bruce Henry
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FULL NAME(S) OF INVENTOR(S)

72	GARVIE, Bruce Henry
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EARLIEST PRIORITY CLAIMED		COUNTRY		NUMBER		DATE	
33	NIL	31	NIL	32	NIL		

NOTE: The country must be indicated by its International Abbreviation - see schedule 4 of the Regulations

TITLE OF INVENTION

54	" SPORTS EQUIPMENT "
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* ~~I/we~~ Bruce Henry Garvie

hereby declare that :-

1. ~~I/we~~ am/~~are~~ the applicant(~~s~~) mentioned above;
- ** 2. ~~I/we have been authorized by the applicant(s) to make this declaration and have knowledge of the facts herein stated in the capacity of~~ of the applicant(~~s~~);
- *** 3. the inventor(~~s~~) of the abovementioned invention is/~~are~~ the person(~~s~~) named above ~~and the applicant(s) has/have acquired the right to apply by virtue of an assignment from the inventor(s);~~
4. to the best of my/~~our~~ knowledge and belief, if a patent is granted on the application, there will be no lawful ground for the revocation of the patent;
- **** 5. ~~this is a convention application and the earliest application from which priority is claimed as set out above is the first application in a convention country in respect of the invention claimed in any of the claims; and~~
6. the partners and qualified staff of the firm of ADAMS & ADAMS, patent attorneys, are authorised, jointly and severally, with powers of substitution and revocation, to represent the applicant(s) in this application and to be the address for service of the applicant(s) while the application is pending and after a patent has been granted on the application.

SIGNED THIS 24th DAY OF May 19 99


BRUCE HENRY GARVIE

(no legalization necessary)

- * In the case of application in the name of a company, partnership or firm, give full names of signatory/signatories, delete paragraph 1, and enter capacity of each signatory in paragraph 2.
- ** If the applicant is a natural person, delete paragraph 2.
- *** If the right to apply is not by virtue of an assignment from the inventor(s), delete "an assignment from the inventor(s)" and give details of acquisition of right.
- **** For non-convention applications, delete paragraph 5.

ADAMS & ADAMS
PATENT ATTORNEYS
PRETORIA

REPUBLIC OF SOUTH AFRICA
Patents Act, 1978

PROVISIONAL SPECIFICATION

(Section 30 (1) - Regulation 27)

21	01	OFFICIAL APPLICATION NO
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993671

22	LODGING DATE
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31 May 1999

71	FULL NAME(S) OF APPLICANT(S)
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GARVIE, Bruce Henry

72	FULL NAME(S) OF INVENTOR(S)
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GARVIE, Bruce Henry

54	TITLE OF INVENTION
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" SPORTS EQUIPMENT "

This invention relates to sporting equipment. More particularly, this invention relates to an insert for a cleat for an article of footwear, a cleat for an article of footwear, and a method of manufacturing a cleat for an article of footwear.

According to a first aspect of the invention, there is provided an insert for a cleat for an article of footwear, the insert including

a stem portion

an engagement means defined at a first end of the stem portion for releasable engagement with a complimentary engagement formation defined on an undersole of the article of footwear;

a securing formation extending from the stem portion for securing a traction member to the stem portion;

with at least the stem portion being formed of a synthetic plastics material having a hardness in the region of between 75MPa and 85MPa.

The insert may be integrally moulded in an injection moulding process. The synthetic plastics material may be a polyamide such as nylon, or the like.

The securing formation may be in the form a skirt or flange which extends substantially orthogonally from the stem portion. The flange may be spaced from

a second end of the stem portion. A plurality of circumferentially spaced apertures may be defined in the flange portion.

The stem portion may be in the form of a round cylindrical element, with the engagement means being in the form of an external screw thread which is defined on the element for engagement with an internal screw thread which is defined in a complementary socket in the undersole of the article of footwear.

According to a second aspect of the invention, there is provided a cleat for an article of footwear, the cleat including

an insert as described above; and

a traction member which is secured to the securing formation of the insert.

The traction member may be of a resiliently deformable synthetic plastics material and be formed about the insert in an injection moulding process, so that the securing formation and the second end of the stem are encased in the traction member, with the first end of the stem portion, on which the engagement means is defined, protruding from the traction member. The synthetic plastics material may be polyurethane, or the like.

It will be appreciated that, because of both the insert and the traction member are formed of synthetic plastics materials, that they will bond in the injection moulding process.

The traction member may be substantially round when viewed from above, having a substantially planar upper surface, with the first portion of the stem projecting from the upper surface so that the upper surface in use abuts the undersole of the article of footwear. A plurality of traction formations may be defined on a bottom surface of the traction member. The traction formations may be in the form of spaced apart spikes.

A central traction formation or spike may be defined on the bottom surface of the traction member. It will be appreciated that the central traction formation will be aligned with the second end of the stem of the insert. In a preferred embodiment of the invention, the second end of the insert extends into the central traction formation.

The traction member may be of a different colour to the insert. It will further be appreciated that, when the central traction formation is worn away by use, at least a part of the second end of the insert will be visible. This may be used to serve as a wear indicator, to indicate to a user of the article of footwear when to replace the cleat.

According to a third aspect of the invention, there is provided a method of manufacturing a cleat for an article of footwear, the method including the steps of

forming an insert as described above in an a first step of an injection moulding process; and

forming a traction member about the insert in a second step of the injection moulding process.

The invention is now described, by way of example, with reference to the accompanying drawings.

In the drawings,

Figure 1 shows a schematic side view of an insert, in accordance with a first aspect of the invention, for a cleat for an article of footwear;

Figure 2 shows a schematic side sectioned view taken at II-II of Figure 4, of a cleat, in accordance with a second aspect of the invention, for use with an article of footwear;

Figure 3 shows a schematic plan view of a first embodiment of the cleat;

Figure 4 shows a schematic plan view of a second embodiment of the cleat;

Figure 5 shows a schematic plan view of a third embodiment of the cleat; and
and

Figure 6 shows a schematic plan view of a fourth embodiment of the cleat.

In Figure 1, reference numeral 10 generally indicates an insert, in accordance with the invention, for a cleat for an article of footwear.

The insert 10 includes a stem portion 12 with an engagement means in the form of an external screw thread 14 being defined on a first end 16 of the

stem portion 12 for releasable engagement with a complimentary engagement formation of an undersole of the article of footwear or golf shoe(not shown).

The insert 10 also includes a securing formation in the form a skirt or flange 18 which extends substantially orthogonally from a second end 20 of the stem portion 12. The flange 18 has radially extending limbs 22, as shown on Figures 3 to 5 of the drawings in dotted lines. Four circumferentially spaced apart apertures 24 are defined in the flange 18.

The insert 10 is formed of a synthetic plastics material in the form of an unreinforced impact modified PA6 grade plastics material with low density, such as obtainable from BASF South Africa under the trade name " Ultramid B3Z" and having a ball indentation hardness of 80MPa. The insert 10 is integrally moulded in a first step of an injection moulding process.

Referring now to Figures 2 to 5 of the drawings, a cleat, in accordance with a second aspect of the invention, for use with an article of footwear or golf shoe, is generally indicated by the reference numeral 26.

Each cleat 26 includes the insert 10 as shown in Figure 1 and a traction member 28 which is secured to the securing formation 18 of the insert 10. The traction member 28 is of a resiliently deformable synthetic plastics material and is formed about the insert 10 in an injection moulding process, so that the securing formation 18 and the second end 20 of the stem portion 12 are encased in the

traction member 28, with the first end 16 of the stem portion 12, on which the screw thread 14 is defined, protruding from the traction member 28.

It will be appreciated that, because of both the insert 10 and the traction member 28 are formed of synthetic plastics materials, that they will bond in the injection moulding process.

Each traction member 28 is substantially circular in plan view, having a substantially planar upper surface 30 (as shown in Figure 2 of the drawings), which in use abuts the undersole of the shoe. A plurality of traction formations or spikes 32 is defined on a bottom surface 34 of each traction member 28. The spikes 32 are triangular in shape (figure 4), rhombohedral (Figure 3), or circular (figure 5) or wedge-like (figure 6). Each spike 32 has a substantially planar contact portion 36 to enhance wear.

A central traction formation 38 is defined on the bottom surface 34 of each traction member 28, the central traction formation 38 being aligned with the second end 20 of the stem portion 12 of the insert 10.


The traction member 28 may be of a different colour to the insert 10. Thus, when the central traction formation 38 is worn away by use, a part of the second end 20 of the insert will be visible. This feature serves as a wear indicator, alerting a user of the shoe to replace the cleat 26.

A pair of openings 40 is defined in each traction member 28 which allows teeth of a tightening member to be inserted for insertion and removal of the cleat 26 from the shoe in use.

In use, the cleat 26 is engaged to the undersole of the shoe by screwing the first end 16 of the stem portion 12 of the insert 10 into a complimentary socket defined in the shoe.

The applicant believes that the invention, as herein described with reference to the drawings, has several advantages. The cleat 26 is formed in a single, economic process. The insert 10 is formed from a plastics material which is of sufficient hardness to alleviate past problems experienced with stripping of a thread on the stem. Because both the insert 10 and the traction member 28 are formed of synthetic plastics materials, they bond in the manufacturing process, which alleviates problems experienced with prior art cleats where a metal insert is used and insufficient bonding between the insert in the traction member creates problems when torque is applied to the cleat in the insertion and removal of the cleat from the shoe in use. Also, the second end 20 of the insert 10 projects into and is aligned with the central traction formation 38 of the traction member 28, thereby providing stability in a central region of the cleat 26 and also serving as a convenient wear indicator.

DATED THIS 31ST DAY OF MAY 1999


ILZE NACHENIUS
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APPLICANT'S PATENT ATTORNEY

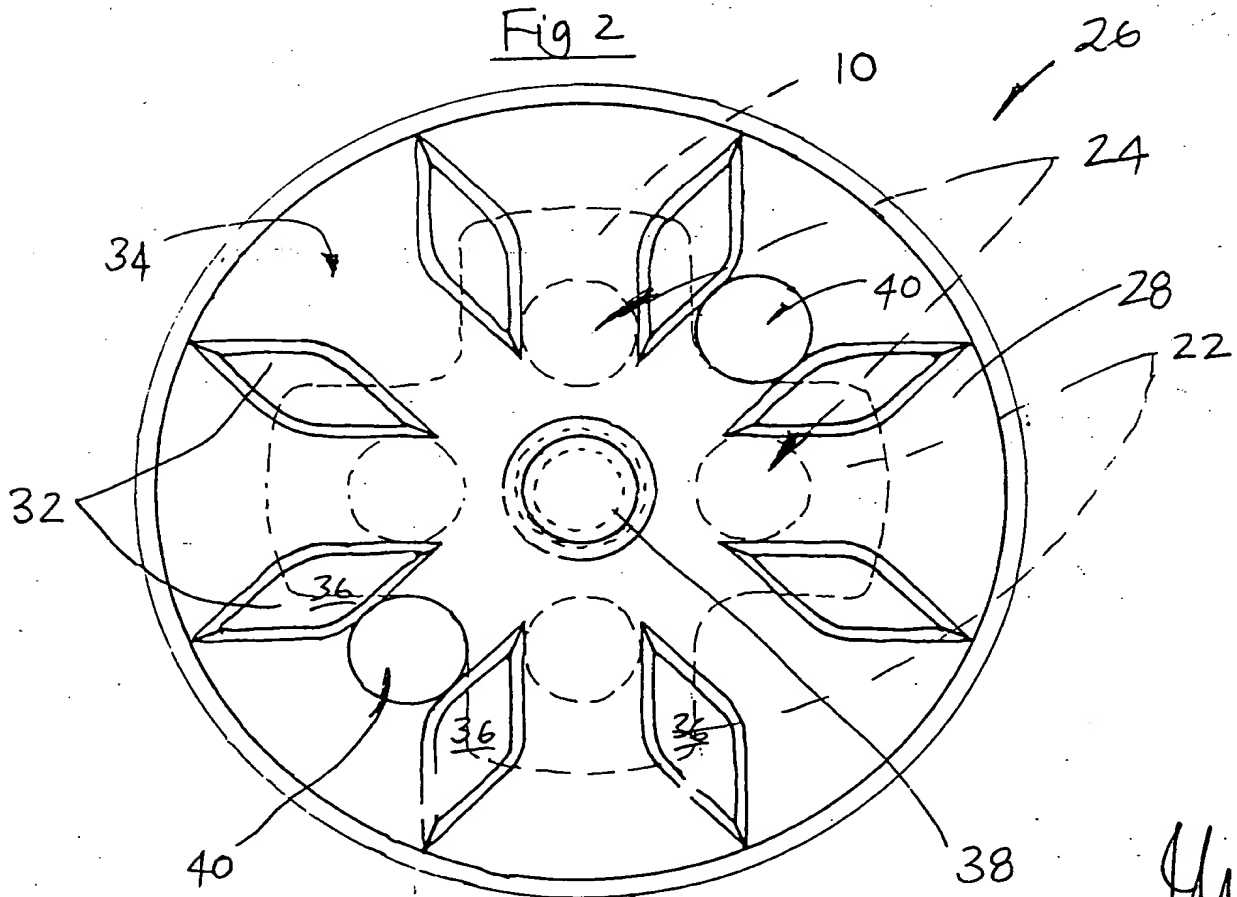
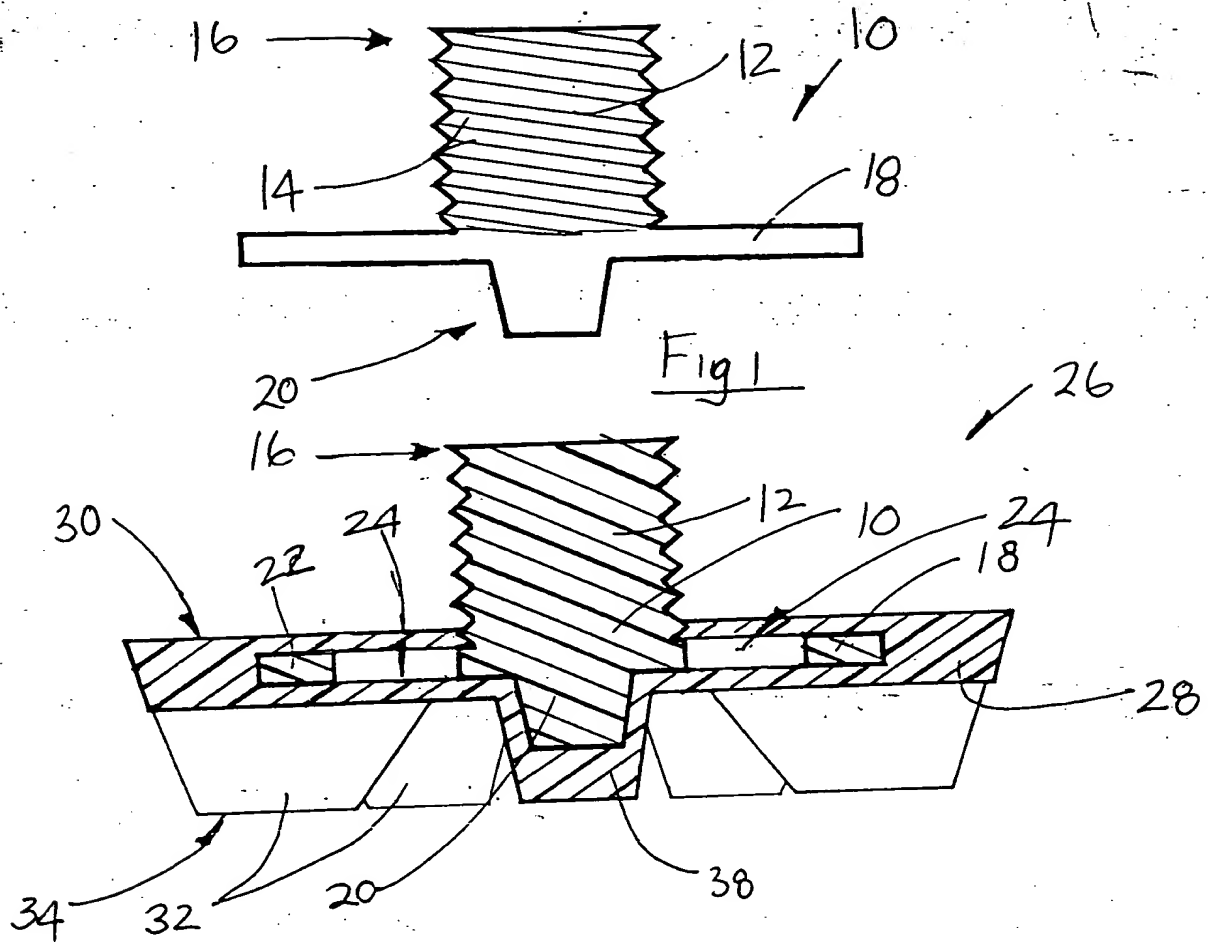


Fig 3

